


CREDIT OPINION

5 October 2021

Update

 Rate this Research

RATINGS

Oglethorpe Power Corporation

Domicile	Tucker, Georgia, United States
Long Term Rating	Baa2
Type	LT Issuer Rating
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Oglethorpe Power Corporation

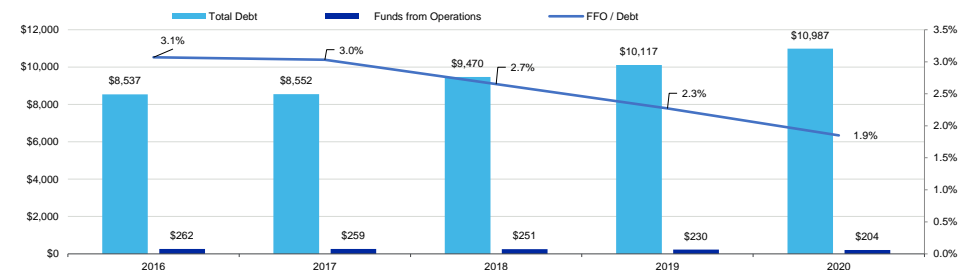
Credit Update of Key Rating Factors

Summary

Oglethorpe Power Corporation's (OPC; Baa1 senior secured stable) credit profile reflects the significant challenges OPC faces because of its 30% participant share in the Vogtle nuclear facility expansion project (the project), most recently including additional schedule delays and cost increases for OPC and its partners announced in Q-2 2021. Nevertheless, all of the project's partners remain steadfast in support for the project. Even with the latest challenges for the project, the joint owners agreement and term sheets (collectively the JOAs) have forms of cost mitigation and cost shifting to help protect OPC should costs exceed its latest revised budget of \$8.25 billion, which still includes a sizable contingency. The credit quality also considers OPC's weak financial metrics compared to most cooperative peers, primarily resulting from significant debt financing of the sizable capital program and related adjustments for associated capitalized interest. To balance these credit challenges, there are several credit positive underpinnings, including OPC's strong bond with its members via long-term wholesale power supply contracts, rate autonomy, growing service territory economy, reasonably competitive rates and access to strong liquidity. OPC's investment in the Vogtle project also benefits from its access to low cost Department of Energy (DOE) loan guarantees and there are good prospects for it to monetize nuclear production tax credits (PTCs) once the project is completed.

Exhibit 1

Historical FFO, Total Debt and FFO to Total Debt



Source: Moody's Financial Metrics

Credit Strengths

- » Strong support for the project from OPC's members, its project partners, and other key constituent groups
- » The JOAs include risk mitigation and cost shifting features should future construction costs for the project exceed the revised July 2021 budget
- » Benefits from DOE loan guarantees and good prospects for monetizing nuclear PTCs
- » OPC has rate setting autonomy and a strong bond with financially sound members via long term wholesale power contracts, while maintaining reasonably competitive rates and access to strong liquidity

Credit Challenges

- » Several construction delays and related cost increases have put the project more than six years behind the original schedule and well in excess of the earlier cost estimates
- » Keeping within the revised July 2021 project budget and construction schedule while coping with the lingering effects of the COVID-19 pandemic
- » Weak financial metrics caused by the project related debt financing and our adjustments for capitalized interest
- » Potential that one of the joint owners may elect to terminate the project
- » Moderate carbon transition risk within the electric generation and transmission cooperative sector based on OPC's investments in coal and gas-fired generation assets

Rating Outlook

The stable outlook reflects the steadfast support for the project among all the co-owners and other key constituents. Especially important for OPC are the several forms of risk mitigation and cost shifting under the JOAs which offer protection should future construction costs for the project exceed the revised July 2021 budget. The outlook also incorporates the benefits of strong contractual ties that OPC has with its members and the strong likelihood that management and the board will ultimately exercise rate autonomy so that OPC's weak financial metrics will return to stronger levels in support of the credit profile once the project costs are fully incorporated into the wholesale power rates charged to its members.

Factors that Could Lead to an Upgrade

- » An upgrade of ratings is unlikely over the next two years as the project advances and OPC's metrics remain weak primarily because of our adjustments for capitalized interest on the project's significant debt financing
- » Beyond the next two years, credit metrics that would support an upgrade include a funds from operations (FFO) to debt ratio closer to 6% and equity to capitalization exceeding 10%

Factors that Could Lead to a Downgrade

- » If there are further delays or cost increases on the project that materially stretch further the cooperative's revised July 2021 budget
- » If there is a decrease in the level of co-owners', members', state, regulatory, political, or public support for the project
- » If OPC incurs a sustained deterioration of its liquidity or future rate increases necessary to strengthen its cash flow credit metrics and equity levels in the capital structure once the project is in commercial operation are significantly delayed

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 2

Oglethorpe Power Corporation Key Indicators

	2016	2017	2018	2019	2020
Times Interest Earned Ratio(TIER)	0.8x	0.8x	0.8x	0.7x	0.6x
DSC (Debt Service Coverage)	1.3	1.0	1.1	0.7	1.1
FFO / Debt	3.1%	3.0%	2.7%	2.3%	1.9%
(FFO + Interest Expense) / Interest Expense	1.7x	1.7x	1.6x	1.6x	1.5x
Equity / Total Capitalization	7.4%	7.9%	7.2%	7.0%	7.6%

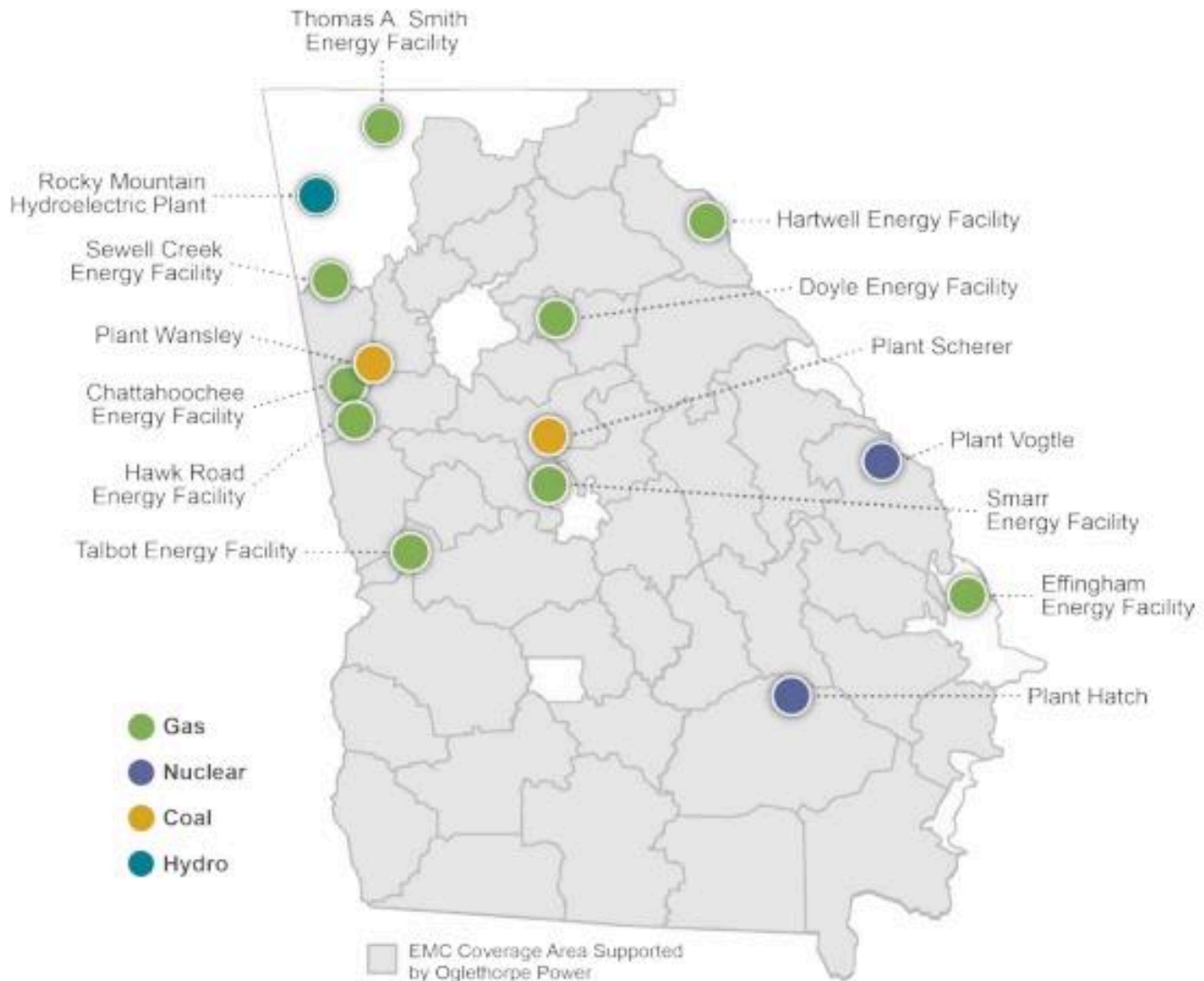
Source: Moody's Investors Service

Profile

OPC is a generation-only electric cooperative that provides wholesale power to its 38 member-owner distribution cooperatives located throughout Georgia. As depicted in exhibit 3 below, OPC's power is supplied by its ownership shares in two coal facilities that are co-owned and operated by [Georgia Power Company](#) (GPC, Baa1 stable), two nuclear facilities that are also co-owned by GPC and operated by Southern Nuclear Company (SNC) and one pump-storage hydroelectric facility, as well as a number of wholly-owned gas-fired units, including the 511 MW natural gas-fired Effingham Energy Facility that was purchased in July 2021 for \$232.5 million. OPC also manages and operates another six natural gas-fired units owned by Smarr EMC. Together, these resources provide OPC with more than 8,300 MWs of summer planning owned or leased reserve capacity, ranking it among the largest cooperatives in terms of generating capacity. It is also among the largest in terms of revenues, which were \$1.38 billion in FY 2020.

Exhibit 3

OPC Territorial Map and Generation Capacity



Source: Oglethorpe Power 8-K Filing Dated August 26, 2021

Detailed Credit Considerations

The Vogtle project continues to achieve progress yet its construction schedule is delayed again

As depicted in Exhibit 4 below, the project continues to make considerable progress towards completion. GPC filed its Twenty-fifth Semi-annual Vogtle Construction Monitoring Report (VCM) with the Georgia Public Service Commission (GPSC) in August 2021 which cites the project's overall estimated completion at 93.9% as of July 31, 2021.

Exhibit 4

Total project is nearing completion**Status of Vogtle project phases as of July 31, 2021**

Project Phase	July 2021 % Complete
Engineering	100%
Procurement	99.9%
Construction	93.8%
I&C/ Cyber Security	99.9%
ITP/ Start-Up Testing	55.4%
Total Project	93.9%

Source: Georgia Power Company 25th Vogtle Construction Monitoring report

While hot functional testing for the Vogtle Unit 3 was completed in July 2021, the timeframe and duration for achieving that key milestone took longer than originally expected. That delay represents just one of a myriad other challenges the project has been recently experiencing, including, but not limited to, construction productivity, construction remediation work, the pace of system turnovers, spent fuel pool repairs, and other testing. As a result of the recent project challenges, SNC further extended certain milestone dates and GPC has disclosed that it now projects in-service dates for Unit No. 3 and 4 in the second quarter of 2022 and first quarter of 2023, respectively.

OPC is taking a moderately more conservative view that assumes the second quarter 2023 as the in-service date for Unit 4. OPC's more conservative assumption primarily addresses uncertainty surrounding the fact that meeting GPC's first quarter 2023 date depends on overall construction productivity as well as appropriate levels of craft laborers, particularly electrical and pipefitter craft labor, being added and maintained.

The next significant milestone for Unit 3 is fuel load, currently targeted to occur around November 2021, which would then be followed by commercial operation. Prior to fuel load, significant work activities for Unit 3 include the completion of electrical wiring and other remediation work under recently increased scrutiny by the Nuclear Regulatory Commission (NRC), system construction, completion and paperwork, and submittal of inspections, tests, analyses and acceptance criteria (ITAAC). Unit 4 recently achieved the initial energization milestone and the next significant milestone for Unit 4 is open vessel testing to be then followed by cold hydro testing.

An additional challenge that remains for both units relates to the uncertain future impact that a resurgence of COVID-19 positive testing could have on overall productivity.

The JOAs provide opportunity for risk mitigation and cost shifting

During November 2017 through February 18, 2019, GPC and its project co-owners entered into a series of amendments to their JOAs that among other things established the co-owners responsibility for their respective share of the latest \$2.3 billion overall project cost increase at that time, including an \$800 million project-specific contingency. Under the JOAs, should the project costs exceed the revised budget set under the JOAs by \$800 million to \$1.6 billion, GPC, a 45.7% current owner, will be responsible for 55.7% of the increase, with the remaining 44.3% of costs paid by the other co-owners according to their original ownership interests. If the project costs rise by another \$500 million to \$2.1 billion from \$1.6 billion, GPC will be responsible for 65.7% of the increase, with the remaining owners being responsible for the remainder. Beyond this level of future potential cost increase, the co-owners have a one-time option to tender a portion of their ownership interest to GPC. Because of this arrangement, the JOAs would not require an owner vote to continue construction should costs increase above the August 2018 \$2.3 billion budget cost increase. Moreover, GPC would have the sole control over the vote to cancel the project if GPC were asked to pay 100% of the excess costs for the other owners that exceed \$2.1 billion. Also GPC, at the co-owners' option, has agreed to purchase the co-owners' federal PTCs, a source of liquidity for OPC and the other co-owners, at varying purchase prices dependent on the actual cost to complete the project. We understand that OPC's revised project budget as described in detail below assumes no cost sharing under the JOAs. To the extent that cost sharing surfaces in some form under the JOAs, we assume such sharing would add further to the OPC-specific contingency in the revised budget.

During Q-4 2020, GPC again added to the Vogtle project construction contingency, this time adding another \$375 million, of which OPC's 30% share was \$112.5 million. As of March 31, 2021, GPC assigned approximately \$183 million of that project construction

contingency to the base capital cost, \$55 million of which was OPC's 30% share. The additions to base capital costs were primarily associated with the then assumed schedule extension for Unit No. 3 to December 2021, construction productivity, support resources and construction remediation work. During Q-1 2021, GPC also established an additional \$106 million of construction contingency, of which OPC's 30% share was \$32 million. Considering subsequent factors, including further schedule extensions into 2022 for both Units 3 and 4 noted above, during Q-2 2021, the remaining previously established project-level contingency of approximately \$300 million, of which OPC's 30% interest was \$90 million, and an additional \$746 million, of which OPC's 30% interest is \$224 million, was assigned to the base capital cost forecast for costs primarily associated with the most recent schedule extensions for Units 3 and 4, construction remediation work for Unit 3, and construction productivity and support resources for both Units 3 and 4. GPC also established an additional \$260 million of construction contingency, of which OPC's 30% interest is \$78 million, to replenish the project-level construction contingency. GPC has stated its expectation to allocate the remainder of this project-level contingency by completion of the project.

The continuing effects of the COVID-19 pandemic also remain a credit overhang, which could further disrupt or delay construction, testing, supervisory, and support activities at the project. GPC currently estimates that the incremental cost associated with COVID-19 mitigation actions and impacts on construction productivity is between \$352 million and \$442 million, of which OPC's 30% interest is \$106 million to \$133 million and is included in the project's latest revised budget.

Other contractual arrangements also mitigate some of the project's risks

SNC has been leading construction at the project under a services agreement with Westinghouse approved in July 2017. The services agreement helps partially balance the credit negative aspects of OPC's nuclear construction risk as it proceeds with its 30% participation in the project because, among other things, the services agreement ensures access to the Westinghouse intellectual property while SNC, on behalf of GPC and its co-owners, continues to manage the project pursuant to the JOAs.

While SNC has charge over construction management at the Vogtle site, Bechtel has the role of primary construction contractor under a fee based plus incentives construction contract. This contract has been integral to the project's progress because it helped pave the way for the DOE's approval of additional loan commitments as described in more detail below. The contract with Bechtel does not provide the same degree of cost protections as a fixed price EPC contract. Although there are incentives in the contractual arrangements which were intended to provide motivation for Bechtel to meet or exceed certain project completion milestones established, those milestones were not met.

OPC has increased its budget for the project to reflect the latest schedule delays, increases to the project's base capital cost forecast and replenishment of project-specific and OPC-specific contingency amounts

Exhibit 5 below depicts OPC's latest revised budget of \$8.25 billion, representing a \$750 million increase from its prior \$7.5 billion budget. OPC's revised \$8.25 billion budget assumes a June 2022 and June 2023 in-service date for Unit 3 and Unit 4, respectively, and the OPC assumed in-service date for Unit 4 is three-months later than that assumed in GPC's project budget. The revised OPC budget continues to include construction costs, financing costs, and both a project-level and OPC-level contingency. Separate from the contingency amounts, the OPC revised budget includes approximately \$80 million of construction, financing and owner's costs to cover three additional months of construction for Unit 4 compared to the assumptions reflected in GPC's project budget. Construction costs in the budget are net of \$1.1 billion received from Toshiba Corporation under the Guarantee Settlement Agreement. OPC reports it has already invested about \$6.5 billion in the project as of June 30, 2021.

Also depicted in exhibit 5 below, OPC's \$78 million share of the replenished Vogtle project-specific contingency is separate and in addition to the OPC-specific contingency, which OPC also supplemented and is now sized at \$424 million. The combined OPC share of the project-specific contingency and its OPC-specific contingency currently comprise \$502 million of its \$8.25 billion project budget. The OPC-specific contingency, which the cooperative has carried at various levels since the beginning of the project, was designed by OPC as it planned to cover potential cost, schedule, and financing risks associated with its share of the project which may not be covered by project-specific contingencies. As the project moves forward, the OPC-specific contingency may continue to fluctuate as it represents the difference between known project-specific costs and contingencies and OPC's revised total budget of \$8.25 billion. The revised project-specific contingency plus the OPC-specific contingency totaling \$502 million, represents about 29% of OPC's total remaining budget at June 30, 2021, absent any cost benefits that may accrue if the project is completed ahead of the OPC's latest assumed in service dates for Units 3 and 4. Management has indicated that the OPC-specific contingency in the \$8.25 billion

budget is expected to be sufficient to cover delays up to three months on each unit beyond its assumed in-service dates of June 2022 and June 2023 for Unit 3 and 4, respectively. Any further delays beyond these extended dates are expected to impact OPC's share of the project costs by approximately \$55 million per month for both units and approximately \$25 million per month for Unit 4 only, including financing costs. At the end of the project, if there is remaining OPC-specific contingency, management has indicated plans to adjust OPC's project budget to remove this contingency and bill OPC's members based on the actual project costs.

Exhibit 5

OPC Project budget (including total contingency), actual costs and remaining project budget through June 30, 2021

	Project Budget	Actual Costs(at June 30, 2021)	Remaining Project Budget
Construction Costs(1)	6,013	5,145	868
Financing Costs	1,735	1,385	350
Total Costs	7,748	6,530	1,218
Project-Level Contingency	78	0	78
Oglethorpe-Level Contingency	424	0	424
Total Contingency	502	0	502
Totals	8,250	6,530	1,720

(1) Construction costs are net of \$1.1 billion received from Toshiba Corporation under a Guarantee Settlement Agreement

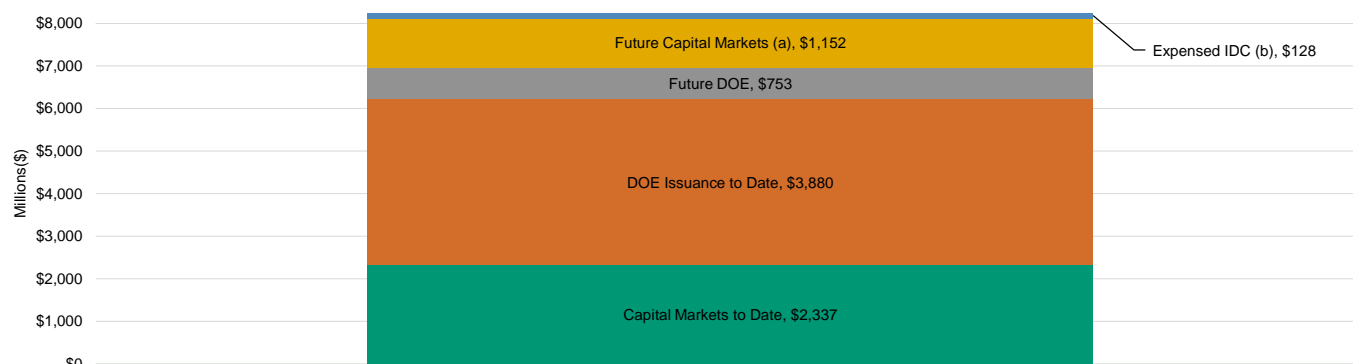
Source: Oglethorpe Power 10-Q Filing for second quarter ended June 30, 2021

DOE loan guarantees are providing significantly lower than budgeted cost of capital alternatives

The DOE loan guarantees of about \$12 billion which were made available from the Federal Financing Bank (FFB) to OPC and two other co-owners in the project represent a credit positive factor because the loans offer a reliable funding source at a meaningfully lower than budgeted cost of capital and signify continued support for the project from the US Government despite substantial construction delays and cost increases. Borrowings under the program are at the applicable Treasury rate plus 0.375%. OPC's \$4.68 billion share of the \$12 billion includes the approximate \$3.06 billion (including capitalized interest amounts) approved in 2014 and about \$1.620 billion approved in 2019. OPC has typically been advancing DOE loans twice a year and as noted in exhibit 6 below, it had about \$752.7 million of remaining availability as of June 30, 2021. OPC estimates \$500 million of net present value (NPV) interest expense savings over the life of the guaranteed DOE loans. The benefits of the DOE loan guarantees in the way of reliable, low-cost funding remain a contributing factor to the supportive stance taken by OPC's members, the members' retail customers, the other co-owners, state politicians and regulators for new nuclear construction in Georgia.

Exhibit 6

Vogtle 3&4 Financing Plan



(a) These amounts would be reduced by unspent contingency, if any, and would be increased for amounts not advanced under "Future DOE" or for expenditures in excess of the \$8.25 billion budget, if any. In addition, approximately \$395 million of bonds not shown here may be issued to refinance early maturities of DOE debt. Therefore, base case taxable financings for Vogtle over the next five years are estimated to be ~\$1.5 billion.

(b) Oglethorpe has a rate management program that is voluntary for Members. This program allows it to expense and recover interest costs on a current basis that would otherwise be deferred or capitalized and financed through the issuance of long-term debt.

Source: Oglethorpe Power 8-K Filing Dated August 26, 2021

In the event that certain mandatory prepayment events occur under the DOE loan agreement, including the termination of the Vogtle 3 and 4 agreement, OPC may, at the DOE's option, be required to repay the outstanding amount over five years with level principal amortization. Should this scenario play out, OPC would likely rely upon its access to the capital markets to refinance the DOE loans.

Potential to monetize PTCs remains a credit positive factor for OPC

Although OPC is not a taxable entity, it is currently assuming some benefits of monetizing its share of PTCs relating to the project at some future point through sale to a taxable third party. The opportunity to do so stems from federal legislation extending the eligibility for nuclear PTCs. The enactment of legislation extending the eligibility of PTCs is an integral part of the project's future, including maintaining co-owners' unanimous support. Also, OPC and the other co-owners have an option to sell the PTCs to GPC.

Strong bonds exist between OPC and its members through wholesale power contracts

OPC sells virtually all of its generation output to its members pursuant to wholesale power contracts, limiting its exposure to market volatility. However, unlike most of the other electric cooperatives, which are the sole electric providers to their members, OPC supplies its members with less than 100% of their aggregate energy needs. The share of the members' aggregate needs supplied by OPC averaged slightly less than 60% during 2016-20 compared to 92% in 2004. For the first half of 2021, OPC supplied its members with about 59% of their aggregate energy needs which was slightly less than the 55% provided in the first half of 2020.

Although each member is entitled to and pays all costs associated with a fixed level of capacity from specific OPC generating units, the members independently obtain supplemental power requirements and fulfill load growth from other sources, thereby transferring supply risk to the members. Under a strict interpretation of the definitions in our Methodology, OPC receives a "Ba" indicated score for Factor 1 as OPC's owned resources provided about 57% of its members' power requirements in FY 2020. However, we do not consider this strategy to be an incremental credit risk primarily because the incremental supply risk under these arrangements has been transferred to the distribution members. Moreover, since its members' payment obligation to pay all of the cooperative's costs is joint and several, OPC's stable supply of relatively affordable base load power remains increasingly valuable to its members as their needs grow and they are continually forced to look for additional sources of supply. An indicated score of "Baa" for this sub-factor more appropriately captures the degree of credit impact from the current relationships between OPC and its members, especially when considered together with its rate autonomy. For example, even considering construction delays and cost overruns to date, the member base to this point has been substantially supportive of OPC's investment in the project and all 38 members are jointly and severally liable to pay all of the cooperative's costs, including the project costs.

That said, there is incremental credit risk with the non-OPC power supply members where members have separate arrangements with power suppliers expiring from the mid-2020s through the 2030s. These supplemental arrangements increase the credit risk profile of the participating members and, if not renewed or replaced on satisfactory terms, could weaken the financial profile of each of the participating members involved, all of which have off-take arrangements with OPC.

OPC is maintaining reasonably competitive rates and has moderate carbon transition risk

Although OPC's long-range spending remains elevated and a corresponding increase in rates appears likely, the cooperative's exposure to potential rate shock in the next two years is limited by its high degree of fuel and resource diversity. Beginning in June 2022 and even more so in June 2023, a significant increase in sales to members would coincide with commercial operation of the Vogtle Units 3 and 4, respectively, which should help mitigate the overall wholesale power rate increases to the 34 participating members as the increased costs of providing service are spread among a much larger number of megawatt hour sales.

We ascribe a moderate degree of carbon transition risk for OPC as part of our environmental risk assessment. Based on 2020 data, about 4% of OPC's energy was generated by coal-fired resources, while about 40% came from its non-carbon emitting nuclear ownership shares, both of which demonstrate good operating performance. Since 2011, a notably higher percentage of energy generation from natural gas-fired resources has occurred. This trend will continue given the likely trend for natural gas prices, which supports future economic dispatch of OPC's natural gas generation.

OPC's average rates are likely to remain reasonably competitive in the short-term. OPC's wholesale rate for the first half of FY 2021 was about 6.58 cents/kWh and for FY 2020 was 6.21 cents/kWh (compared to 6.16 cents in FY 2019, 6.43 cents in FY 2018, 6.02 cents/kWh in FY 2017, 5.9 cents/kWh in FY 2016, 6.64 cents/kWh in FY 2015 and a range of 5.77 - 6.52 cents/kWh during 2012-2014). Further, OPC is able to adjust its rates easily and quickly, if necessary, without seeking regulatory approval and fuel and purchased power costs are passed straight through to members one month in arrears.

Sound members' consolidated financial profile prevails

On average, OPC's members exhibit a sound consolidated credit profile. The members' substantially residential customer base, which comprised approximately 67.2% of FY 2020 MWh sales, provides a high degree of stability and enabling OPC to remain resilient against the potential negative impacts from the COVID-19 pandemic. The members' average equity to capitalization ratio of 52.1% is also a credit positive factor, as is the members' flexible rate-setting ability. Also, on a consolidated basis, OPC has the largest amount of consolidated assets, by far, of any cooperative that we rate, and its service territory offers relatively stable expected growth rates. While the members vary widely in terms of their individual size, only two of OPC's members accounted for more than 10% of total FY 2020 member revenues, the largest at approximately 15.0% and the other at 13.0%. OPC's wholesale power supply contracts with its members through 2050 and the degree of support the members exhibit for the Vogtle project reinforce the members' commitment to OPC as an integral component of their power supply.

The Vogtle project continues to weigh heavily on OPC and contributes to prevailing weak financial metrics

OPC's budgeting practices and its rate structure consistently enable it to achieve its minimum target of 1.10x margin for interest (MFI), as defined in its indenture. Beginning in 2009, OPC's board approved a plan to increase rates first to a level that would enable it to achieve an MFI ratio of 1.12x in 2009 and then to 1.14x in 2010-20. OPC's Board approved a budget for 2021 and 2022 which committed to maintain MFI coverage at the 1.14x level and similar action is likely to be part of future budget planning for the remainder of the project construction period.

As an electric generation cooperative, OPC does not seek to maximize margins, often making credit metrics such as MFI or the debt service coverage (DSC) ratio less useful measures of credit strength since they are usually designed to be at or near 1.0x coverage. Nevertheless, OPC exhibits weak metrics. Because of including a substantial amount of capitalized interest which is part of our standard adjustments for coverage metrics, OPC's times interest earned ratio (TIER) under our defined calculation, which is akin to the MFI ratio, has been below 1.0x in most years since the project began. The DSC ratio is also affected by our standard adjustments and was 1.0x and 1.1x for fiscal years 2017 and 2018, before dipping to 0.7x in 2019 before rebounding to 1.1x in 2020. OPC's DSC ratio is periodically negatively affected by some large bullet maturities which results in a DSC ratio that is less than 1.0x as was the case in 2019. OPC has addressed similar refinancings in the past and during March 2019 used cash on hand to address the scheduled \$350 million bullet maturity at that time.

Even as the FFO benefits from the inclusion of depreciation from the Smith plant, the FFO to debt metric declined to 1.9% in FY 2020 from 2.3% in FY 2019 as debt continues to increase with funding for the project and the FFO to debt ratio is likely to remain under pressure while the nuclear construction period continues. The FFO to interest ratio has held steady in the 1.5x-1.6x range for the past three years. OPC's adjusted equity to capitalization ratio averaged 7.3% for the fiscal years 2018-20, positioning it at the low end of the 5%-20% "Baa" category range under the methodology.

To the extent OPC expenses rather than capitalizes interest during construction, there would likely be a lower level of external financing requirements and more stable credit metrics. Along these lines, the OPC board has approved three rate management programs since 2012. The programs were implemented to give members the option to accelerate costs that would otherwise be deferred into future periods.

The effects of the capitalized interest adjustments will continue to weigh heavily on OPC's adjusted financial metrics through the remainder of the project's construction period. Also, the prospective DSC ratio will occasionally be negatively affected by some large bullet maturities which result in a DSC ratio less than 1.0x. OPC continues to benefit from ample access to various capital sources, including the RUS, DOE guaranteed loan program and the long-term debt capital markets when necessary. OPC has a large investor following, which facilitates its access to the capital markets as most recently demonstrated by its \$450 million first mortgage bond offering in August 2020. OPC's financial metrics are likely to significantly improve beginning in 2022-23, assuming the Vogtle units go into commercial operations, which will commence depreciation on the assets and should cause OPC to exercise rate autonomy to incorporate the power costs into the members' wholesale electric rates.

ESG considerations

Environmental

OPC carefully attends to its environmental risks. As noted above, we ascribe a relatively moderate degree of carbon transition risk for OPC as part of our environmental risk assessment. Based on 2020 data, about 4% of OPC's energy was generated by coal-fired resources, while about 40% came from its non-carbon emitting nuclear ownership shares, both of which demonstrate a good operating profile. A notably higher percentage of energy production from natural gas-fired generation resources that has occurred since 2011 should continue owing to the likely trend for prospective natural gas prices, which should support future economic dispatch of OPC's natural gas generation. OPC is also supportive of GPC's plans to retire the Plant Wansley by August 2022, which is comprised of two approximately 850 MW coal units, as well as one 50MW oil fueled combustion turbine. GPC is the majority owner of Plant Wansley and OPC has a 30% interest. A continuing dependence on natural gas fired units and the retirement of Plant Wansley should further moderate OPC's carbon footprint.

Social

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. Through the initial months of the COVID-19 pandemic, OPC experienced some modest effects that reduced commercial and industrial loads for its members; however, this trend was partially offset by increased sales to the members' predominantly residential load. That said, OPC has proven to be resilient to the adverse effects of the coronavirus pandemic and we currently do not see any material future credit risks for OPC as the coronavirus pandemic persists, especially with growing concerns about the Delta variant.

Governance

Through operations in the US electric generation & transmission cooperative sector, OPC faces relatively low governance risks. OPC's board and management benefits from rate autonomy. OPC adjusts its rates automatically through a formulaic rate structure without the need for regulatory approval. Fuel and purchased power costs are passed straight through to members one month in arrears, while fixed costs are billed monthly based on a board-approved annual budget, and trueed up to actuals at year-end. Also, management and the OPC board attend to compliance with existing laws and regulations relating to operating and financial reporting aspects of the cooperative's business. They also maintain close communications with the members to address their business needs. The close communications lead to a strong bond OPC enjoys with its members via long-term wholesale power supply contracts which remains a key credit positive underpinning that helps to balance other credit risks.

Liquidity Analysis

OPC has strong liquidity, especially considering the availability of the DOE guaranteed loans and a disciplined approach to maintaining good quality bank credit facilities. Liquidity will remain a significantly weighted credit risk factor owing to the scale and complexity of OPC's various projects which will be unfolding through mid-2023. As these projects unfold, the cooperative's capital spending will be dominated by the remaining costs to be incurred for its 30% share of the Vogtle project, currently estimated at \$1.72 billion for 2021-23.

OPC continues to fund its monthly share of the project costs primarily with commercial paper (CP) under its \$1.21 billion CP program and then periodically repays the CP with proceeds from long-term debt issuance. At August 20, 2021, its outstanding CP was \$1.015 billion. About \$781 million of the CP relates to the Vogtle project and the remaining \$234 million represents bridge financing for OPC's recent purchase of the Effingham gas plant. OPC plans to follow its practice of periodically issuing long term debt in the capital markets, or borrowing through the Rural Utilities Service (RUS) or the remaining available funds under the DOE guaranteed loan program and using the proceeds to repay portions of its then outstanding CP.

External short-term liquidity is primarily provided by OPC's \$1.21 billion committed senior unsecured syndicated credit facility, which expires in December 2024. The facility has same-day drawing availability and no ongoing material adverse change clause. The most notable covenant requires OPC to maintain minimum patronage capital levels which it consistently achieves. OPC uses the facility to support its outstanding commercial paper in an amount up to the full \$1.21 billion.

At August 20, 2021, OPC also had additional committed credit facilities for an incremental \$723 million of borrowing capacity, \$473 million of which can be incurred as senior unsecured credit and \$250 million of which can be incurred as senior secured credit. The \$250 million secured facility is a line of credit with National Rural Utilities Cooperative Finance Corporation (CFC), which expires December 2023. Under the \$250 million arrangement with CFC, OPC can make term loans with maturities no later than December 31, 2043. Under a \$110 million unsecured facility with CFC which also expires in December 2023, OPC has the option to convert any amounts outstanding to a secured term loan under the \$250 million facility, which would reduce the amount available under the \$250 million facility. Under these terms, the maximum amount that can be drawn under the two CFC facilities combined is \$250 million, which thus reduces total availability under the committed facilities to \$613 million instead of the \$723 million referenced above.

At August 20, 2021, OPC also had a \$363 million unsecured bilateral facility with JPMorgan Chase that was scheduled to expire in October 2021. This credit facility was previously amended in March 2020 to increase the authorized amount from \$150 million to \$363 million. With the increased availability in place, on April 1, 2020 OPC borrowed under the JPMorgan Chase bilateral credit facility to repurchase and hold for its own account \$213 million of 2013 pollution control bonds (PCBs) which were subject to mandatory tender. On July 30 2020, OPC repaid the \$213 million borrowed from JPMorgan Chase with proceeds from commercial paper issuances. OPC subsequently remarketed the PCBs in August 2020 and the proceeds were used to pay the purchase price of the PCBs to OPC upon remarketing and converting the PCBs to a new term rate. Effective October 1, 2021, OPC executed a second amended

and restated renewal of this credit facility with JPMorgan Chase at \$350 million for a three year term now expiring October 1, 2024 to address additional liquidity needs stemming from the Effingham plant acquisition.

Combined available borrowing capacity under all lines totaled \$805 million at August 20, 2021 after taking into account usage to backstop \$1.015 billion of CP outstanding and just \$2.7 million for letters of credit following use of available cash for the early retirement of \$245.6 million in letter of credit backed variable rate pollution control bonds earlier in August.

Also, at August 20, 2021, OPC reported unrestricted cash and equivalents on hand of \$551 million and had access to about \$359.8 million of approved but undrawn RUS loan availability. At August 20, 2021 OPC also had \$378.3 million on deposit in the RUS cushion of credit (COC) program. The 2019 Farm Bill signed in December 2018 implemented changes to the COC program that preclude future deposits after December 20, 2018 and allow program participants to prepay loans under the RUS loan program without a prepayment penalty through September 30, 2020. The COC balance was earning 5% through October 1, 2020, then declined to 4%, which rate is effective until October 1, 2021 when the COC balance will earn interest at a 1-year floating Treasury rate. COC deposits can only be used to repay obligations owed to the RUS/FFB loan program. Including the effects of early retirement of letter of credit backed variable rate pollution control bonds in August, OPC still has more than \$10.5 billion of long-term debt, most of which is fixed-rate amortizing, while the balance includes predominantly long-dated bullet maturities; as of June 30, 2021, OPC reported current maturities of long term debt at \$269.6 million.

Other Considerations

As depicted in exhibit 7 below, Moody's evaluates OPC's financial performance relative to the U.S. Electric Generation and Transmission Cooperatives Methodology Scorecard. OPC's scorecard-indicated outcome based on historical results is Baa2, which is one notch below its Baa1 senior secured rating. The one notch differential reflects our view that OPC's financial metrics will significantly improve in 2022-23 assuming the Vogtle units go into commercial operations, begin to depreciate and OPC exercises its rate autonomy to incorporate the power costs into the members' wholesale electric rates.

Exhibit 7

U.S. Electric Generation & Transmission Cooperative Rating Methodology Scorecard

U.S. Electric Generation & Transmission Cooperatives Industry Scorecard [1][2]		Current FY 12/31/2020
Factor 1: Long-Term Wholesale Power Supply Contracts and Regulatory Status (20.0%)	Measure	Score
a) % Member Load Served under Regulatory Status	Baa	Baa
Factor 2: Rate Flexibility (20.0%)		
a) Board Involvement / Variable Cost Adjustment Mechanisms	Baa	Baa
b) Purchased Power / Total MWh Sales (%)	0.4%	Aaa
c) New Build Exposure (% Net PP&E)	Baa	Baa
d) Potential for Rate Shock Exposure	Ba	Ba
Factor 3: Member / Owner Profile (10.0%)		
a) Residential Sales / Total Sales (%)	67.2%	A
b) Members' Consolidated Equity / Capitalization (%)	52.1%	A
Factor 4: 3-Year Average G&T Financial Metrics (40.0%)		
a) TIER (3 Year Avg)	0.7x	B
b) DSC (3 Year Avg)	1.0x	B
c) FFO / Debt (3 Year Avg)	2.2%	Ba
d) (FFO + Interest) / Interest Expense (3 Year Avg)	1.6x	Baa
e) Equity / Total Capitalization (3 Year Avg)	7.3%	Baa
Factor 5: G&T Size (10.0%)		
a) Megawatt hour sales (Millions of MWhs)	22.2	Aa
b) Net PP&E (USD Billions)	\$10.7	Aaa
Rating:		
a) Scorecard-Indicated Outcome		Baa2
b) Actual Rating Assigned (Senior Secured)		Baa1

Moody's 12-18 Month Forward View
As of Published Date [3]

Measure	Score
Baa	Baa
Baa	Baa
0.5% - 1.5%	Aaa
Baa	Baa
Ba	Ba
65% - 70%	A
50% - 54%	A
0.6x - 1x	B
1x - 1.1x	Ba
2% - 3%	Ba
1.5x - 1.8x	Baa
6% - 7%	Baa
22 - 25	Aa
\$12 - \$13	Aaa
	Baa2
	Baa1

[1] All ratios are based on 'Adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2020; Source Moody's Financial Metrics™

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Investors Service

Ratings

Exhibit 8

Category	Moody's Rating
OGLETHORPE POWER CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
First Mortgage Bonds	Baa1
Senior Secured	Baa1
Commercial Paper	P-2

Source: Moody's Investors Service

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